



SEQUENCE LISTING

<110> Anderson, John P.
Basi, Gurigbal
Doane, Minh Tam
Frigon, Normand
John, Varghese
Power, Michael
Sinha, Sukanto
Tatsuno, Gwen
Tung, Jay
Wang, Shuwen
McConlogue, Lisa

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35 40 45
Glu Glu Pro Glu Glu Pro Gly Arg Arg Gly Ser Phe Val Glu Met Val
50 55 60
Asp Asn Leu Arg Gly Lys Ser Gly Gln Gly Tyr Tyr Val Glu Met Thr
65 70 75 80
Val Gly Ser Pro Pro Gln Thr Leu Asn Ile Leu Val Asp Thr Gly Ser
85 90 95
Ser Asn Phe Ala Val Gly Ala Ala Pro His Pro Phe Leu His Arg Tyr
100 105 110
Tyr Gln Arg Gln Leu Ser Ser Thr Tyr Arg Asp Leu Arg Lys Gly Val
115 120 125
Tyr Val Pro Tyr Thr Gln Gly Lys Trp Glu Gly Glu Leu Gly Thr Asp
130 135 140
Leu Val Ser Ile Pro His Gly Pro Asn Val Thr Val Arg Ala Asn Ile
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Ala Ala Ile Thr Glu Ser Asp Lys Phe Phe Ile Asn Gly Ser Asn Trp
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Glu Gly Ile Leu Gly Leu Ala Tyr Ala Glu Ile Ala Arg Pro Asp Asp
180 185 190
Ser Leu Glu Pro Phe Phe Asp Ser Leu Val Lys Gln Thr His Val Pro
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Asp His Ser Leu Tyr Thr Gly Ser Leu Trp Tyr Thr Pro Ile Arg Arg
245 250 255
Glu Trp Tyr Tyr Glu Val Ile Ile Val Arg Val Glu Ile Asn Gly Gln
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Asp Leu Lys Met Asp Cys Lys Glu Tyr Asn Tyr Asp Lys Ser Ile Val
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290 295 300
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<211> 407

<212> PRT

<213> Homo sapiens

<400> 58

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Thr	Gly	Ser	Ser	Asn	Phe	Ala	Val	Gly	Ala	Ala	Pro	His	Pro	Phe	Leu
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Lys	Gly	Val	Tyr	Val	Pro	Tyr	Thr	Gln	Gly	Lys	Trp	Glu	Gly	Glu	Leu
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Ser	Asn	Trp	Glu	Gly	Ile	Leu	Gly	Leu	Ala	Tyr	Ala	Glu	Ile	Ala	Arg
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Pro	Asp	Asp	Ser	Leu	Glu	Pro	Phe	Phe	Asp	Ser	Leu	Val	Lys	Gln	Thr
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His	Val	Pro	Asn	Leu	Phe	Ser	Leu	Gln	Leu	Cys	Gly	Ala	Gly	Phe	Pro
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Leu	Asn	Gln	Ser	Glu	Val	Leu	Ala	Ser	Val	Gly	Gly	Ser	Met	Ile	Ile
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Ser	Ile	Val	Asp	Ser	Gly	Thr	Thr	Asn	Leu	Arg	Leu	Pro	Lys	Lys	Val
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Phe	Glu	Ala	Ala	Val	Lys	Ser	Ile	Lys	Ala	Ala	Ser	Ser	Thr	Glu	Lys
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Tyr	Leu	Arg	Pro	Val	Glu	Asp	Val	Ala	Thr	Ser	Gln	Asp	Asp	Cys	Tyr
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Lys	Phe	Ala	Ile	Ser	Gln	Ser	Ser	Thr	Gly	Thr	Val	Met	Gly	Ala	Val
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Ile	Met	Glu	Gly	Phe	Tyr	Val	Val	Phe	Asp	Arg	Ala	Arg	Lys	Arg	Ile
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Gly	Phe	Ala	Val	Ser	Ala	Cys	His	Val	His	Asp	Glu	Phe	Arg	Thr	Ala
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<211> 452

<212> PRT

<213> Homo sapiens

<400> 59

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Ala	Ala	Ile	Thr	Glu	Ser	Asp	Lys	Phe	Phe	Ile	Asn	Gly	Ser	Asn	Trp
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<212> PRT
<213> Homo sapiens

<400> 60
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1 5 10 15
Leu Pro Ala His Gly Thr Gln His Gly Ile Arg Leu Pro Leu Arg Ser
20 25 30
Gly Leu Gly Gly Ala Pro Leu Gly Leu Arg Leu Pro Arg Glu Thr Asp
35 40 45
Glu Glu Pro Glu Glu Pro Gly Arg Arg Gly Ser Phe Val Glu Met Val
50 55 60
Asp Asn Leu Arg Gly Lys Ser Gly Gln Gly Tyr Tyr Val Glu Met Thr
65 70 75 80
Val Gly Ser Pro Pro Gln Thr Leu Asn Ile Leu Val Asp Thr Gly Ser
85 90 95
Ser Asn Phe Ala Val Gly Ala Ala Pro His Pro Phe Leu His Arg Tyr
100 105 110
Tyr Gln Arg Gln Leu Ser Ser Thr Tyr Arg Asp Leu Arg Lys Gly Val
115 120 125
Tyr Val Pro Tyr Thr Gln Gly Lys Trp Glu Gly Glu Leu Gly Thr Asp
130 135 140
Leu Val Ser Ile Pro His Pro Asn Val Thr Val Arg Ala Asn Ile
145 150 155 160
Ala Ala Ile Thr Glu Ser Asp Lys Phe Phe Ile Asn Gly Ser Asn Trp
165 170 175
Glu Gly Ile Leu Gly Leu Ala Tyr Ala Glu Ile Ala Arg Pro Asp Asp
180 185 190
Ser Leu Glu Pro Phe Phe Asp Ser Leu Val Lys Gln Thr His Val Pro
195 200 205
Asn Leu Phe Ser Leu Gln Leu Cys Gly Ala Gly Phe Pro Leu Asn Gln
210 215 220
Ser Glu Val Leu Ala Ser Val Gly Gly Ser Met Ile Ile Gly Gly Ile
225 230 235 240
Asp His Ser Leu Tyr Thr Gly Ser Leu Trp Tyr Thr Pro Ile Arg Arg
245 250 255
Glu Trp Tyr Tyr Glu Val Ile Ile Val Arg Val Glu Ile Asn Gly Gln
260 265 270
Asp Leu Lys Met Asp Cys Lys Glu Tyr Asn Tyr Asp Lys Ser Ile Val
275 280 285
Asp Ser Gly Thr Thr Asn Leu Arg Leu Pro Lys Lys Val Phe Glu Ala
290 295 300
Ala Val Lys Ser Ile Lys Ala Ala Ser Ser Thr Glu Lys Phe Pro Asp
305 310 315 320
Gly Phe Trp Leu Gly Glu Gln Leu Val Cys Trp Gln Ala Gly Thr Thr
325 330 335
Pro Trp Asn Ile Phe Pro Val Ile Ser Leu Tyr Leu Met Gly Glu Val
340 345 350
Thr Asn Gln Ser Phe Arg Ile Thr Ile Leu Pro Gln Gln Tyr Leu Arg
355 360 365
Pro Val Glu Asp Val Ala Thr Ser Gln Asp Asp Cys Tyr Lys Phe Ala
370 375 380
Ile Ser Gln Ser Ser Thr Gly Thr Val Met Gly Ala Val Ile Met Glu
385 390 395 400
Gly Phe Tyr Val Val Phe Asp Arg Ala Arg Lys Arg Ile Gly Phe Ala
405 410 415
Val Ser Ala Cys
420

<210> 61

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<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide inhibitor

<220>
<221> MOD_RES
<222> 4
<223> Xaa = hydroxyethylene

<400> 61
Glu Val Met Xaa Ala Glu Phe
 1           5

<210> 62
<211> 26
<212> PRT
<213> Homo sapiens

<400> 62
Leu Met Thr Ile Ala Tyr Val Met Ala Ala Ile Cys Ala Leu Phe Met
 1           5           10          15
Leu Pro Leu Cys Leu Met Val Cys Gln Trp
 20           25

<210> 63
<211> 33
<212> PRT
<213> Homo sapiens

<220>
<223> P26-P4'sw peptide substrate

<400> 63
Cys Gly Gly Ala Asp Arg Gly Leu Thr Thr Arg Pro Gly Ser Gly Leu
 1           5           10          15
Thr Asn Ile Lys Thr Glu Glu Ile Ser Glu Val Asn Leu Asp Ala Glu
 20           25          30
Phe

<210> 64
<211> 29
<212> PRT
<213> Homo sapiens

<220>
<223> P26-P1' peptide substrate with CGG linker

<400> 64
Cys Gly Gly Ala Asp Arg Gly Leu Thr Thr Arg Pro Gly Ser Gly Leu
 1           5           10          15
Thr Asn Ile Lys Thr Glu Glu Ile Ser Glu Val Asn Leu
 20           25

<210> 65
<211> 501
<212> PRT
<213> Mus musculus

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<400> 65

Met Ala Pro Ala Leu His Trp Leu Leu Leu Trp Val Gly Ser Gly Met
1 5 10 15
Leu Pro Ala Gln Gly Thr His Leu Gly Ile Arg Leu Pro Leu Arg Ser
20 25 30
Gly Leu Ala Gly Pro Pro Leu Gly Leu Arg Leu Pro Arg Glu Thr Asp
35 40 45
Glu Glu Ser Glu Glu Pro Gly Arg Arg Gly Ser Phe Val Glu Met Val
50 55 60
Asp Asn Leu Arg Gly Lys Ser Gly Gln Gly Tyr Tyr Val Glu Met Thr
65 70 75 80
Val Gly Ser Pro Pro Gln Thr Leu Asn Ile Leu Val Asp Thr Gly Ser
85 90 95
Ser Asn Phe Ala Val Gly Ala Ala Pro His Pro Phe Leu His Arg Tyr
100 105 110
Tyr Gln Arg Gln Leu Ser Ser Thr Tyr Arg Asp Leu Arg Lys Gly Val
115 120 125
Tyr Val Pro Tyr Thr Gln Gly Lys Trp Glu Gly Glu Leu Gly Thr Asp
130 135 140
Leu Val Ser Ile Pro His Pro Asn Val Thr Val Arg Ala Asn Ile
145 150 155 160
Ala Ala Ile Thr Glu Ser Asp Lys Phe Phe Ile Asn Gly Ser Asn Trp
165 170 175
Glu Gly Ile Leu Gly Leu Ala Tyr Ala Glu Ile Ala Arg Pro Asp Asp
180 185 190
Ser Leu Glu Pro Phe Phe Asp Ser Leu Val Lys Gln Thr His Ile Pro
195 200 205
Asn Ile Phe Ser Leu Gln Leu Cys Gly Ala Gly Phe Pro Leu Asn Gln
210 215 220
Thr Glu Ala Leu Ala Ser Val Gly Gly Ser Met Ile Ile Gly Gly Ile
225 230 235 240
Asp His Ser Leu Tyr Thr Gly Ser Leu Trp Tyr Thr Pro Ile Arg Arg
245 250 255
Glu Trp Tyr Tyr Glu Val Ile Ile Val Arg Val Glu Ile Asn Gly Gln
260 265 270
Asp Leu Lys Met Asp Cys Lys Glu Tyr Asn Tyr Asp Lys Ser Ile Val
275 280 285
Asp Ser Gly Thr Thr Asn Leu Arg Leu Pro Lys Lys Val Phe Glu Ala
290 295 300
Ala Val Lys Ser Ile Lys Ala Ala Ser Ser Thr Glu Lys Phe Pro Asp
305 310 315 320
Gly Phe Trp Leu Gly Glu Gln Leu Val Cys Trp Gln Ala Gly Thr Thr
325 330 335
Pro Trp Asn Ile Phe Pro Val Ile Ser Leu Tyr Leu Met Gly Glu Val
340 345 350
Thr Asn Gln Ser Phe Arg Ile Thr Ile Leu Pro Gln Gln Tyr Leu Arg
355 360 365
Pro Val Glu Asp Val Ala Thr Ser Gln Asp Asp Cys Tyr Lys Phe Ala
370 375 380
Val Ser Gln Ser Ser Thr Gly Thr Val Met Gly Ala Val Ile Met Glu
385 390 395 400
Gly Phe Tyr Val Val Phe Asp Arg Ala Arg Lys Arg Ile Gly Phe Ala
405 410 415
Val Ser Ala Cys His Val His Asp Glu Phe Arg Thr Ala Ala Val Glu
420 425 430
Gly Pro Phe Val Thr Ala Asp Met Glu Asp Cys Gly Tyr Asn Ile Pro
435 440 445
Gln Thr Asp Glu Ser Thr Leu Met Thr Ile Ala Tyr Val Met Ala Ala
450 455 460
Ile Cys Ala Leu Phe Met Leu Pro Leu Cys Leu Met Val Cys Gln Trp

465	470	475	480
Arg Cys Leu Arg Cys	Leu Arg His Gln His	Asp Asp Phe Gly Asp Asp	
485	490	495	
Ile Ser Leu Leu Lys			
500			
<210> 66			
<211> 480			
<212> PRT			
<213> Homo sapiens			
<400> 66			
Thr Gln His Gly Ile Arg Leu Pro Leu Arg Ser Gly Leu Gly Gly Ala			
1 5 10 15			
Pro Leu Gly Leu Arg Leu Pro Arg Glu Thr Asp Glu Glu Pro Glu Glu			
20 25 30			
Pro Gly Arg Arg Gly Ser Phe Val Glu Met Val Asp Asn Leu Arg Gly			
35 40 45			
Lys Ser Gly Gln Gly Tyr Tyr Val Glu Met Thr Val Gly Ser Pro Pro			
50 55 60			
Gln Thr Leu Asn Ile Leu Val Asp Thr Gly Ser Ser Asn Phe Ala Val			
65 70 75 80			
Gly Ala Ala Pro His Pro Phe Leu His Arg Tyr Tyr Gln Arg Gln Leu			
85 90 95			
Ser Ser Thr Tyr Arg Asp Leu Arg Lys Gly Val Tyr Val Pro Tyr Thr			
100 105 110			
Gln Gly Lys Trp Glu Gly Glu Leu Gly Thr Asp Leu Val Ser Ile Pro			
115 120 125			
His Gly Pro Asn Val Thr Val Arg Ala Asn Ile Ala Ala Ile Thr Glu			
130 135 140			
Ser Asp Lys Phe Phe Ile Asn Gly Ser Asn Trp Glu Gly Ile Leu Gly			
145 150 155 160			
Leu Ala Tyr Ala Glu Ile Ala Arg Pro Asp Asp Ser Leu Glu Pro Phe			
165 170 175			
Phe Asp Ser Leu Val Lys Gln Thr His Val Pro Asn Leu Phe Ser Leu			
180 185 190			
Gln Leu Cys Gly Ala Gly Phe Pro Leu Asn Gln Ser Glu Val Leu Ala			
195 200 205			
Ser Val Gly Gly Ser Met Ile Ile Gly Gly Ile Asp His Ser Leu Tyr			
210 215 220			
Thr Gly Ser Leu Trp Tyr Thr Pro Ile Arg Arg Glu Trp Tyr Tyr Glu			
225 230 235 240			
Val Ile Ile Val Arg Val Glu Ile Asn Gly Gln Asp Leu Lys Met Asp			
245 250 255			
Cys Lys Glu Tyr Asn Tyr Asp Lys Ser Ile Val Asp Ser Gly Thr Thr			
260 265 270			
Asn Leu Arg Leu Pro Lys Lys Val Phe Glu Ala Ala Val Lys Ser Ile			
275 280 285			
Lys Ala Ala Ser Ser Thr Glu Lys Phe Pro Asp Gly Phe Trp Leu Gly			
290 295 300			
Glu Gln Leu Val Cys Trp Gln Ala Gly Thr Thr Pro Trp Asn Ile Phe			
305 310 315 320			
Pro Val Ile Ser Leu Tyr Leu Met Gly Glu Val Thr Asn Gln Ser Phe			
325 330 335			
Arg Ile Thr Ile Leu Pro Gln Gln Tyr Leu Arg Pro Val Glu Asp Val			
340 345 350			
Ala Thr Ser Gln Asp Asp Cys Tyr Lys Phe Ala Ile Ser Gln Ser Ser			
355 360 365			
Thr Gly Thr Val Met Gly Ala Val Ile Met Glu Gly Phe Tyr Val Val			
370 375 380			
Phe Asp Arg Ala Arg Lys Arg Ile Gly Phe Ala Val Ser Ala Cys His			

385	390	395	400
Val His Asp Glu Phe Arg Thr Ala Ala Val	Glu Gly Pro Phe Val	Thr	
405	410	415	
Leu Asp Met Glu Asp Cys Gly Tyr Asn Ile	Pro Gln Thr Asp	Glu Ser	
420	425	430	
Thr Leu Met Thr Ile Ala Tyr Val Met Ala	Ala Ile Cys Ala	Leu Phe	
435	440	445	
Met Leu Pro Leu Cys Leu Met Val Cys Gln	Trp Arg Cys	Leu Arg Cys	
450	455	460	
Leu Arg Gln Gln His Asp Asp Phe Ala Asp	Asp Ile Ser	Leu Leu Lys	
465	470	475	480

<210> 67

<211> 444

<212> PRT

<213> Homo sapiens

<400> 67

Gly Ser Phe Val Glu Met Val Asp Asn Leu Arg	Gly Lys Ser Gly Gln	
1 5 10 15		
Gly Tyr Tyr Val Glu Met Thr Val Gly Ser Pro	Pro Gln Thr Leu Asn	
20 25 30		
Ile Leu Val Asp Thr Gly Ser Ser Asn Phe Ala	Val Gly Ala Ala Pro	
35 40 45		
His Pro Phe Leu His Arg Tyr Tyr Gln Arg Gln	Leu Ser Ser Thr Tyr	
50 55 60		
Arg Asp Leu Arg Lys Gly Val Tyr Val Pro	Tyr Thr Gln Gly Lys Trp	
65 70 75 80		
Glu Gly Glu Leu Gly Thr Asp Leu Val Ser Ile	Pro His Gly Pro Asn	
85 90 95		
Val Thr Val Arg Ala Asn Ile Ala Ala Ile	Thr Glu Ser Asp Lys Phe	
100 105 110		
Phe Ile Asn Gly Ser Asn Trp Glu Gly Ile	Leu Gly Leu Ala Tyr Ala	
115 120 125		
Glu Ile Ala Arg Pro Asp Asp Ser Leu Glu	Pro Phe Asp Ser Leu	
130 135 140		
Val Lys Gln Thr His Val Pro Asn Leu Phe	Ser Leu Gln Leu Cys Gly	
145 150 155 160		
Ala Gly Phe Pro Leu Asn Gln Ser Glu Val	Leu Ala Ser Val Gly Gly	
165 170 175		
Ser Met Ile Ile Gly Gly Ile Asp His Ser	Leu Tyr Thr Gly Ser Leu	
180 185 190		
Trp Tyr Thr Pro Ile Arg Arg Glu Trp Tyr	Tyr Glu Val Ile Ile Val	
195 200 205		
Arg Val Glu Ile Asn Gly Gln Asp Leu Lys	Met Asp Cys Lys Glu Tyr	
210 215 220		
Asn Tyr Asp Lys Ser Ile Val Asp Ser Gly	Thr Thr Asn Leu Arg Leu	
225 230 235 240		
Pro Lys Lys Val Phe Glu Ala Ala Val Lys	Ser Ile Lys Ala Ala Ser	
245 250 255		
Ser Thr Glu Lys Phe Pro Asp Gly Phe	Trp Leu Gly Glu Gln Leu Val	
260 265 270		
Cys Trp Gln Ala Gly Thr Thr Pro Trp Asn Ile	Phe Pro Val Ile Ser	
275 280 285		
Leu Tyr Leu Met Gly Glu Val Thr Asn Gln	Ser Phe Arg Ile Thr Ile	
290 295 300		
Leu Pro Gln Gln Tyr Leu Arg Pro Val Glu	Asp Val Ala Thr Ser Gln	
305 310 315 320		
Asp Asp Cys Tyr Lys Phe Ala Ile Ser Gln	Ser Ser Thr Gly Thr Val	
325 330 335		

Met Gly Ala Val Ile Met Glu Gly Phe Tyr Val Val Phe Asp Arg Ala
 340 345 350
 Arg Lys Arg Ile Gly Phe Ala Val Ser Ala Cys His Val His Asp Glu
 355 360 365
 Phe Arg Thr Ala Ala Val Glu Gly Pro Phe Val Thr Leu Asp Met Glu
 370 375 380
 Asp Cys Gly Tyr Asn Ile Pro Gln Thr Asp Glu Ser Thr Leu Met Thr
 385 390 395 400
 Ile Ala Tyr Val Met Ala Ala Ile Cys Ala Leu Phe Met Leu Pro Leu
 405 410 415
 Cys Leu Met Val Cys Gln Trp Arg Cys Leu Arg Cys Leu Arg Gln Gln
 420 425 430
 His Asp Asp Phe Ala Asp Asp Ile Ser Leu Leu Lys
 435 440

<210> 68
 <211> 395
 <212> PRT
 <213> Homo sapiens

<400> 68
 Gly Ser Phe Val Glu Met Val Asp Asn Leu Arg Gly Lys Ser Gly Gln
 1 5 10 15
 Gly Tyr Tyr Val Glu Met Thr Val Gly Ser Pro Pro Gln Thr Leu Asn
 20 25 30
 Ile Leu Val Asp Thr Gly Ser Ser Asn Phe Ala Val Gly Ala Ala Pro
 35 40 45
 His Pro Phe Leu His Arg Tyr Tyr Gln Arg Gln Leu Ser Ser Thr Tyr
 50 55 60
 Arg Asp Leu Arg Lys Gly Val Tyr Val Pro Tyr Thr Gln Gly Lys Trp
 65 70 75 80
 Glu Gly Glu Leu Gly Thr Asp Leu Val Ser Ile Pro His Gly Pro Asn
 85 90 95
 Val Thr Val Arg Ala Asn Ile Ala Ala Ile Thr Glu Ser Asp Lys Phe
 100 105 110
 Phe Ile Asn Gly Ser Asn Trp Glu Gly Ile Leu Gly Leu Ala Tyr Ala
 115 120 125
 Glu Ile Ala Arg Pro Asp Asp Ser Leu Glu Pro Phe Phe Asp Ser Leu
 130 135 140
 Val Lys Gln Thr His Val Pro Asn Leu Phe Ser Leu Gln Leu Cys Gly
 145 150 155 160
 Ala Gly Phe Pro Leu Asn Gln Ser Glu Val Leu Ala Ser Val Gly Gly
 165 170 175
 Ser Met Ile Ile Gly Gly Ile Asp His Ser Leu Tyr Thr Gly Ser Leu
 180 185 190
 Trp Tyr Thr Pro Ile Arg Arg Glu Trp Tyr Tyr Glu Val Ile Ile Val
 195 200 205
 Arg Val Glu Ile Asn Gly Gln Asp Leu Lys Met Asp Cys Lys Glu Tyr
 210 215 220
 Asn Tyr Asp Lys Ser Ile Val Asp Ser Gly Thr Thr Asn Leu Arg Leu
 225 230 235 240
 Pro Lys Lys Val Phe Glu Ala Ala Val Lys Ser Ile Lys Ala Ala Ser
 245 250 255
 Ser Thr Glu Lys Phe Pro Asp Gly Phe Trp Leu Gly Glu Gln Leu Val
 260 265 270
 Cys Trp Gln Ala Gly Thr Thr Pro Trp Asn Ile Phe Pro Val Ile Ser
 275 280 285
 Leu Tyr Leu Met Gly Glu Val Thr Asn Gln Ser Phe Arg Ile Thr Ile
 290 295 300
 Leu Pro Gln Gln Tyr Leu Arg Pro Val Glu Asp Val Ala Thr Ser Gln

305	310	315	320
Asp Asp Cys Tyr Lys Phe Ala Ile Ser Gln Ser Ser Thr Gly Thr Val			
325	330	335	
Met Gly Ala Val Ile Met Glu Gly Phe Tyr Val Val Phe Asp Arg Ala			
340	345	350	
Arg Lys Arg Ile Gly Phe Ala Val Ser Ala Cys His Val His Asp Glu			
355	360	365	
Phe Arg Thr Ala Ala Val Glu Gly Pro Phe Val Thr Leu Asp Met Glu			
370	375	380	
Asp Cys Gly Tyr Asn Ile Pro Gln Thr Asp Glu			
385	390	395	
<210> 69			
<211> 439			
<212> PRT			
<213> Homo sapiens			
<400> 69			
Met Val Asp Asn Leu Arg Gly Lys Ser Gly Gln Gly Tyr Tyr Val Glu			
1	5	10	15
Met Thr Val Gly Ser Pro Pro Gln Thr Leu Asn Ile Leu Val Asp Thr			
20	25	30	
Gly Ser Ser Asn Phe Ala Val Gly Ala Ala Pro His Pro Phe Leu His			
35	40	45	
Arg Tyr Tyr Gln Arg Gln Leu Ser Ser Thr Tyr Arg Asp Leu Arg Lys			
50	55	60	
Gly Val Tyr Val Pro Tyr Thr Gln Gly Lys Trp Glu Gly Glu Leu Gly			
65	70	75	80
Thr Asp Leu Val Ser Ile Pro His Gly Pro Asn Val Thr Val Arg Ala			
85	90	95	
Asn Ile Ala Ala Ile Thr Glu Ser Asp Lys Phe Phe Ile Asn Gly Ser			
100	105	110	
Asn Trp Glu Gly Ile Leu Gly Leu Ala Tyr Ala Glu Ile Ala Arg Pro			
115	120	125	
Asp Asp Ser Leu Glu Pro Phe Phe Asp Ser Leu Val Lys Gln Thr His			
130	135	140	
Val Pro Asn Leu Phe Ser Leu Gln Leu Cys Gly Ala Gly Phe Pro Leu			
145	150	155	160
Asn Gln Ser Glu Val Leu Ala Ser Val Gly Gly Ser Met Ile Ile Gly			
165	170	175	
Gly Ile Asp His Ser Leu Tyr Thr Gly Ser Leu Trp Tyr Thr Pro Ile			
180	185	190	
Arg Arg Glu Trp Tyr Tyr Glu Val Ile Ile Val Arg Val Glu Ile Asn			
195	200	205	
Gly Gln Asp Leu Lys Met Asp Cys Lys Glu Tyr Asn Tyr Asp Lys Ser			
210	215	220	
Ile Val Asp Ser Gly Thr Thr Asn Leu Arg Leu Pro Lys Lys Val Phe			
225	230	235	240
Glu Ala Ala Val Lys Ser Ile Lys Ala Ala Ser Ser Thr Glu Lys Phe			
245	250	255	
Pro Asp Gly Phe Trp Leu Gly Glu Gln Leu Val Cys Trp Gln Ala Gly			
260	265	270	
Thr Thr Pro Trp Asn Ile Phe Pro Val Ile Ser Leu Tyr Leu Met Gly			
275	280	285	
Glu Val Thr Asn Gln Ser Phe Arg Ile Thr Ile Leu Pro Gln Gln Tyr			
290	295	300	
Leu Arg Pro Val Glu Asp Val Ala Thr Ser Gln Asp Asp Cys Tyr Lys			
305	310	315	320
Phe Ala Ile Ser Gln Ser Ser Thr Gly Thr Val Met Gly Ala Val Ile			
325	330	335	
Met Glu Gly Phe Tyr Val Val Phe Asp Arg Ala Arg Lys Arg Ile Gly			

340	345	350
Phe Ala Val Ser Ala Cys His Val His Asp Glu Phe Arg Thr Ala Ala		
355	360	365
Val Glu Gly Pro Phe Val Thr Leu Asp Met Glu Asp Cys Gly Tyr Asn		
370	375	380
Ile Pro Gln Thr Asp Glu Ser Thr Leu Met Thr Ile Ala Tyr Val Met		
385	390	395
Ala Ala Ile Cys Ala Leu Phe Met Leu Pro Leu Cys Leu Met Val Cys		
405	410	415
Gln Trp Arg Cys Leu Arg Cys Leu Arg Gln Gln His Asp Asp Phe Ala		
420	425	430
Asp Asp Ile Ser Leu Leu Lys		
435		

<210> 70
<211> 390
<212> PRT
<213> Homo sapiens

<400> 70		
Met Val Asp Asn Leu Arg Gly Lys Ser Gly Gln Gly Tyr Tyr Val Glu		
1	5	10
Met Thr Val Gly Ser Pro Pro Gln Thr Leu Asn Ile Leu Val Asp Thr		
20	25	30
Gly Ser Ser Asn Phe Ala Val Gly Ala Ala Pro His Pro Phe Leu His		
35	40	45
Arg Tyr Tyr Gln Arg Gln Leu Ser Ser Thr Tyr Arg Asp Leu Arg Lys		
50	55	60
Gly Val Tyr Val Pro Tyr Thr Gln Gly Lys Trp Glu Gly Glu Leu Gly		
65	70	75
Thr Asp Leu Val Ser Ile Pro His Gly Pro Asn Val Thr Val Arg Ala		
85	90	95
Asn Ile Ala Ala Ile Thr Glu Ser Asp Lys Phe Phe Ile Asn Gly Ser		
100	105	110
Asn Trp Glu Gly Ile Leu Gly Leu Ala Tyr Ala Glu Ile Ala Arg Pro		
115	120	125
Asp Asp Ser Leu Glu Pro Phe Phe Asp Ser Leu Val Lys Gln Thr His		
130	135	140
Val Pro Asn Leu Phe Ser Leu Gln Leu Cys Gly Ala Gly Phe Pro Leu		
145	150	155
Asn Gln Ser Glu Val Leu Ala Ser Val Gly Gly Ser Met Ile Ile Gly		
165	170	175
Gly Ile Asp His Ser Leu Tyr Thr Gly Ser Leu Trp Tyr Thr Pro Ile		
180	185	190
Arg Arg Glu Trp Tyr Tyr Glu Val Ile Ile Val Arg Val Glu Ile Asn		
195	200	205
Gly Gln Asp Leu Lys Met Asp Cys Lys Glu Tyr Asn Tyr Asp Lys Ser		
210	215	220
Ile Val Asp Ser Gly Thr Thr Asn Leu Arg Leu Pro Lys Lys Val Phe		
225	230	235
Glu Ala Ala Val Lys Ser Ile Lys Ala Ala Ser Ser Thr Glu Lys Phe		
245	250	255
Pro Asp Gly Phe Trp Leu Gly Glu Gln Leu Val Cys Trp Gln Ala Gly		
260	265	270
Thr Thr Pro Trp Asn Ile Phe Pro Val Ile Ser Leu Tyr Leu Met Gly		
275	280	285
Glu Val Thr Asn Gln Ser Phe Arg Ile Thr Ile Leu Pro Gln Gln Tyr		
290	295	300
Leu Arg Pro Val Glu Asp Val Ala Thr Ser Gln Asp Asp Cys Tyr Lys		
305	310	315
Phe Ala Ile Ser Gln Ser Ser Thr Gly Thr Val Met Gly Ala Val Ile		

	325	330	335													
Met	Glu	Gly	Phe	Tyr	Val	Val	Phe	Asp	Arg	Ala	Arg	Lys	Arg	Ile	Gly	
	340						345							350		
Phe	Ala	Val	Ser	Ala	Cys	His	Val	His	Asp	Glu	Phe	Arg	Thr	Ala	Ala	
	355						360							365		
Val	Glu	Gly	Pro	Phe	Val	Thr	Leu	Asp	Met	Glu	Asp	Cys	Gly	Tyr	Asn	
	370						375							380		
Ile	Pro	Gln	Thr	Asp	Glu											
	385						390									
<210> 71																
<211> 374																
<212> PRT																
<213> Homo sapiens																
<400> 71																
Glu	Thr	Asp	Glu	Glu	Pro	Glu	Glu	Pro	Gly	Arg	Arg	Gly	Ser	Phe	Val	
	1			5				10						15		
Glu	Met	Val	Asp	Asn	Leu	Arg	Gly	Lys	Ser	Gly	Gln	Gly	Tyr	Tyr	Val	
	20						25							30		
Glu	Met	Thr	Val	Gly	Ser	Pro	Pro	Gln	Thr	Leu	Asn	Ile	Leu	Val	Asp	
	35						40							45		
Thr	Gly	Ser	Ser	Asn	Phe	Ala	Val	Gly	Ala	Ala	Pro	His	Pro	Phe	Leu	
	50						55							60		
His	Arg	Tyr	Tyr	Gln	Arg	Gly	Gln	Leu	Ser	Ser	Thr	Tyr	Arg	Asp	Leu	Arg
	65						70				75				80	
Lys	Gly	Val	Tyr	Val	Pro	Tyr	Thr	Gln	Gly	Lys	Trp	Glu	Gly	Glu	Leu	
	85						90							95		
Gly	Thr	Asp	Leu	Val	Ser	Ile	Pro	His	Gly	Pro	Asn	Val	Thr	Val	Arg	
	100						105							110		
Ala	Asn	Ile	Ala	Ala	Ile	Thr	Glu	Ser	Asp	Lys	Phe	Phe	Ile	Asn	Gly	
	115						120							125		
Ser	Asn	Trp	Glu	Gly	Ile	Leu	Gly	Leu	Ala	Tyr	Ala	Glu	Ile	Ala	Arg	
	130						135							140		
Pro	Asp	Asp	Ser	Leu	Glu	Pro	Phe	Phe	Asp	Ser	Leu	Val	Lys	Gln	Thr	
	145				150				155					160		
His	Val	Pro	Asn	Leu	Phe	Ser	Leu	Gln	Leu	Cys	Gly	Ala	Gly	Phe	Pro	
	165						170							175		
Leu	Asn	Gln	Ser	Glu	Val	Leu	Ala	Ser	Val	Gly	Gly	Ser	Met	Ile	Ile	
	180						185							190		
Gly	Gly	Ile	Asp	His	Ser	Leu	Tyr	Thr	Gly	Ser	Leu	Trp	Tyr	Thr	Pro	
	195						200							205		
Ile	Arg	Arg	Glu	Trp	Tyr	Tyr	Glu	Val	Ile	Ile	Val	Arg	Val	Glu	Ile	
	210						215							220		
Asn	Gly	Gln	Asp	Leu	Lys	Met	Asp	Cys	Lys	Glu	Tyr	Asn	Tyr	Asp	Lys	
	225				230				235					240		
Ser	Ile	Val	Asp	Ser	Gly	Thr	Thr	Asn	Leu	Arg	Leu	Pro	Lys	Lys	Val	
	245						250							255		
Phe	Glu	Ala	Ala	Val	Lys	Ser	Ile	Lys	Ala	Ala	Ser	Ser	Thr	Glu	Lys	
	260						265							270		
Phe	Pro	Asp	Gly	Phe	Trp	Leu	Gly	Glu	Gln	Leu	Val	Cys	Trp	Gln	Ala	
	275						280							285		
Gly	Thr	Thr	Pro	Trp	Asn	Ile	Phe	Pro	Val	Ile	Ser	Leu	Tyr	Leu	Met	
	290						295							300		
Gly	Glu	Val	Thr	Asn	Gln	Ser	Phe	Arg	Ile	Thr	Ile	Leu	Pro	Gln	Gln	
	305				310				315					320		
Tyr	Leu	Arg	Pro	Val	Glu	Asp	Val	Ala	Thr	Ser	Gln	Asp	Asp	Cys	Tyr	
	325						330							335		
Lys	Phe	Ala	Ile	Ser	Gln	Ser	Ser	Thr	Gly	Thr	Val	Met	Gly	Ala	Val	
	340				345				350					350		
Ile	Met	Glu	Gly	Phe	Tyr	Val	Val	Phe	Asp	Arg	Ala	Arg	Lys	Arg	Ile	

355	360	365
Gly Phe Ala Val Ser Ala		
370		

<210> 72
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> P10-P4'staD-V peptide inhibitor

<220>
<221> MOD_RES
<222> 10
<223> Xaa is statine moiety

<400> 72
Lys Thr Glu Glu Ile Ser Glu Val Asn Xaa Val Ala Glu Phe
1 5 10

<210> 73
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> P4-P4'staD-V peptide inhibitor

<220>
<221> MOD_RES
<222> 5
<223> Xaa is statine moiety

<400> 73
Ser Glu Val Asn Xaa Val Ala Glu Phe
1 5

<210> 74
<211> 431
<212> PRT
<213> Homo sapiens

<400> 74
Thr Gln His Gly Ile Arg Leu Pro Leu Arg Ser Gly Leu Gly Gly Ala
1 5 10 15
Pro Leu Gly Leu Arg Leu Pro Arg Glu Thr Asp Glu Glu Pro Glu Glu
20 25 30
Pro Gly Arg Arg Gly Ser Phe Val Glu Met Val Asp Asn Leu Arg Gly
35 40 45
Lys Ser Gly Gln Gly Tyr Tyr Val Glu Met Thr Val Gly Ser Pro Pro
50 55 60
Gln Thr Leu Asn Ile Leu Val Asp Thr Gly Ser Ser Asn Phe Ala Val
65 70 75 80
Gly Ala Ala Pro His Pro Phe Leu His Arg Tyr Tyr Gln Arg Gln Leu
85 90 95
Ser Ser Thr Tyr Arg Asp Leu Arg Lys Gly Val Tyr Val Pro Tyr Thr
100 105 110
Gln Gly Lys Trp Glu Gly Glu Leu Gly Thr Asp Leu Val Ser Ile Pro
115 120 125
His Gly Pro Asn Val Thr Val Arg Ala Asn Ile Ala Ala Ile Thr Glu

130	135	140
Ser	Asp	Lys
Phe	Phe	Ile
Ile	Asn	Gly
Gly	Ser	Asn
Trp	Glu	Gly
Gly	Ile	Leu
Ile		Gly
145	150	155
160		
Leu	Ala	Tyr
Ala	Glu	Ile
Arg	Ala	Arg
Pro	Asp	Asp
Asp	Ser	Ser
Leu	Val	Lys
Gln	Thr	His
Thr	Val	Pro
Pro	Asn	Leu
Asn	Leu	Phe
Leu		Ser
Gly		Leu
165	170	175
175		
Phe	Asp	Ser
Ser	Leu	Val
Val	Lys	Gln
Gln	Thr	His
His	Val	Pro
Pro	Asn	Leu
Asn	Leu	Phe
Leu		Ser
Gly		Leu
180	185	190
190		
Gln	Leu	Cys
Cys	Gly	Ala
Ala	Gly	Phe
Phe	Pro	Leu
Leu	Asn	Gln
Gln	Ser	Glu
Glu	Val	Leu
Leu		Ala
Ala		
195	200	205
205		
Ser	Val	Gly
Gly	Ser	Met
Met	Ile	Ile
Ile	Gly	Gly
Gly	Ile	Asp
Asp	His	Ser
Ser	Leu	Tyr
Tyr		
210	215	220
220		
Thr	Gly	Ser
Ser	Leu	Trp
Trp	Tyr	Thr
Thr	Pro	Ile
Ile	Arg	Arg
Arg	Arg	Glu
Glu	Trp	Tyr
Tyr	Tyr	Glu
225	230	235
240		
Val	Ile	Ile
Ile	Val	Arg
Arg	Val	Glu
Glu	Ile	Asn
Asn	Gly	Gln
Gln	Asp	Leu
Leu	Lys	Met
Met	Asp	
Asp		
245	250	255
255		
Cys	Lys	Glu
Glu	Tyr	Asn
Asn	Tyr	Asp
Asp	Lys	Ser
Ser	Ile	Val
Val	Asp	Ser
Ser	Gly	Thr
Thr	Thr	Thr
260	265	270
270		
Asn	Leu	Arg
Arg	Leu	Pro
Pro	Lys	Lys
Lys	Val	Phe
Phe	Glu	Ala
Ala	Ala	Val
Val	Lys	Ser
Ser	Ile	
275	280	285
285		
Lys	Ala	Ala
Ala	Ser	Ser
Ser	Thr	Glu
Glu	Lys	Phe
Phe	Pro	Asp
Asp	Gly	Phe
Phe	Trp	Leu
Leu	Gly	
290	295	300
300		
Glu	Gln	Leu
Leu	Val	Cys
Cys	Trp	Gln
Gln	Ala	Gly
Gly	Thr	Thr
Thr	Pro	Trp
Trp	Asn	Ile
Asn	Ile	Phe
Phe		
305	310	315
320		
Pro	Val	Ile
Ile	Ser	Leu
Leu	Tyr	Leu
Leu	Met	Gly
Gly	Glu	Val
Val	Thr	Asn
Asn	Gln	Ser
Ser	Phe	
325	330	335
335		
Arg	Ile	Thr
Ile	Leu	Pro
Pro	Gln	Gln
Gln	Tyr	Leu
Leu	Arg	Pro
Arg	Val	Glu
Glu	Asp	Val
Val		
340	345	350
350		
Ala	Thr	Ser
Ser	Gln	Asp
Asp	Asp	Cys
Cys	Tyr	Lys
Lys	Phe	Ala
Ala	Ile	Ser
Ser	Gln	Ser
Ser	355	360
360		365
Thr	Gly	Thr
Thr	Val	Met
Met	Gly	Ala
Ala	Val	Ile
Ile	Met	Glu
Glu	Gly	Phe
Phe	Tyr	Val
Val	Val	
370	375	380
380		
Phe	Asp	Arg
Arg	Ala	Arg
Ala	Lys	Arg
Lys	Ile	Gly
Gly	Phe	Ala
Ala	Val	Ile
Ile	Met	Glu
Glu	Gly	Phe
Phe	Tyr	Val
Val	Val	
385	390	395
400		
Val	His	Asp
His	Glu	Phe
Phe	Arg	Thr
Thr	Ala	Ala
Ala	Val	Glu
Glu	Gly	Pro
Pro	Phe	Val
Val	Thr	
405	410	415
415		
Leu	Asp	Met
Asp	Glu	Asp
Cys	Gly	Tyr
Tyr	Asn	Ile
Ile	Pro	Gln
Gln	Thr	Asp
Asp	Glu	
420	425	430

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Met Thr Val Gly Ser Pro Pro Gln Thr Leu Asn Ile Leu Val Asp Thr
20 25 30
Gly Ser Ser Asn Phe Ala Val Gly Ala Ala Pro His Pro Phe Leu His
35 40 45
Arg Tyr Tyr Gln Arg Gln Leu Ser Ser Thr Tyr Arg Asp Leu Arg Lys
50 55 60
Gly Val Tyr Val Pro Tyr Thr Gln Gly Lys Trp Glu Gly Glu Leu Gly
65 70 75 80
Thr Asp Leu Val Ser Ile Pro His Gly Pro Asn Val Thr Val Arg Ala
85 90 95
Asn Ile Ala Ala Ile Thr Glu Ser Asp Lys Phe Phe Ile Asn Gly Ser
100 105 110
Asn Trp Glu Gly Ile Leu Gly Leu Ala Tyr Ala Glu Ile Ala Arg Pro
115 120 125
Asp Asp Ser Leu Glu Pro Phe Phe Asp Ser Leu Val Lys Gln Thr His

130	135	140
Val Pro Asn Leu Phe Ser	Leu Gln Leu Cys Gly Ala Gly Phe Pro Leu	
145	150	155
Asn Gln Ser Glu Val	Leu Ala Ser Val Gly Gly Ser Met Ile Ile Gly	160
	165	170
Gly Ile Asp His Ser	Leu Tyr Thr Gly Ser Leu Trp Tyr Thr Pro Ile	175
	180	185
Arg Arg Glu Trp Tyr Tyr	Glu Val Ile Ile Val Arg Val Glu Ile Asn	190
	195	200
Gly Gln Asp Leu Lys Met	Asp Cys Lys Glu Tyr Asn Tyr Asp Lys Ser	205
	210	215
Ile Val Asp Ser Gly	Thr Thr Asn Leu Arg Leu Pro Lys Lys Val Phe	220
	225	230
Glu Ala Ala Val Lys Ser	Ile Lys Ala Ala Ser Ser Thr Glu Lys Phe	240
	245	250
Pro Asp Gly Phe Trp Leu Gly Glu Gln	Leu Val Cys Trp Gln Ala Gly	255
	260	265
Thr Thr Pro Trp Asn Ile Phe Pro Val Ile Ser	Leu Tyr Leu Met Gly	270
	275	280
Glu Val Thr Asn Gln Ser Phe Arg Ile Thr Ile	Leu Pro Gln Gln Tyr	285
	290	295
Leu Arg Pro Val Glu Asp Val Ala Thr Ser	Gln Asp Asp Cys Tyr Lys	300
	305	310
Phe Ala Ile Ser Gln Ser Ser Thr Gly	Thr Val Met Gly Ala Val Ile	320
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aay

60

63

<210> 77

<211> 21

<212> PRT

<213> Homo sapiens

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Glu Met Val Asp Asn
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<400> 78
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1 5

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<212> PRT
<213> Homo sapiens

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aaccgtcggt cctccgaaacgt gtactccgccc accggggac ctgagcgagt ccgcac 120
cggatcgaa aacctctcgat ctgtgggtt gaggacttcc tctcaaaagc gggcatgact 180
tctcgctaa gattgtcgtt ttccaaaaac gaggaggatt tgatattcac ctggcccg 240
gtgatgcctt tgagggtggc cgcgtccatc tggcagaaa agacaatctt ttgttgta 300
agcttgggtt gtggcaggct tgagatctgg ccatacactt gagtgacaat gacatccact 360
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<222> 4

<223> Xaa is hydroxyethylene or statine

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<210> 82
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<220>

<223> APP fragment P5-P4' wt

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<223> APP fragment

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<210> 85
<211> 9
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<223> APP fragment

<400> 85
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<210> 86
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<212> PRT
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1 5

<210> 96
<211> 9
<212> PRT
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<220>
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<400> 96
Ser Glu Val Asn Phe Leu Ala Glu Phe
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<211> 14
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<400> 98
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<210> 99
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<212> PRT
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<223> APP substrate fragment:Swedish Sequence  
  
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Val Asn Leu Asp  
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